

Remarks

The Present Invention and the Pending Claims

The present invention relates to navigation technology. Claims 6, 7, 10, 11, 12 and 13 are currently pending in this application. Reconsideration of the pending claims is respectfully requested.

Summary of the Office Action

Claims 8, 9 and 11 are objected to because of informalities. Claims 6-7, 10-11 are rejected under 35 U.S.C. 102 (e) as being anticipated by King et al. (US Pat. 2002/0113734).

Amendment to Office Action

In claims 8, 9 and 11, the informalities pointed out by the examiner have been corrected. Claims 6, 8, 9 are cancelled and rewritten as new claims 12, 13 and 14 respectively. No new matter has been added by way of these amendments.

Response to Office Action

The examiner rejected claims 6-7, 10-11 under 35 U.S.C. 102 (e) as being anticipated by King, et al. (US Pat. 2002/0113734). The examiner stated: "King teaches a global positioning system receiver for performing both navigation and correlation functions including a radio frequency down converter 105, a programmable digital signal processor 140, inherently including a navigation processing unit 140 in communication with and residing with the programmable digital signal processor for performing navigation functions since there are pseudoranges and dopplers to position computation function (fig 4), and a signal processing unit 760,764 in communication with and residing with the programmable digital signal processor for performing signal correlation, and a sampling clock 112 connecting the radio frequency down converter to the programmable digital signal processor".

Claims 6 (presented as new claim 12 in this response), 7 and 10-11 are distinguishable from King et al. The position computation function is an integral part of the navigation processing unit in the art of global positioning systems. King et al. does not contain a navigation processing unit in communication with and residing within the programmable digital signal processor. In King et al., the position computation function that is an essential function of a navigation processing unit is not implemented by the DSP processor. In King et al., the position composition computation function is carried out external to the DSP processor 140, as illustrated in FIG. 4. In contrast, in Purushotham Subbarao et al., as recited in paragraph 65, the position computation function is performed by the user position computation module 215 that lies within the DSP 200. Claim 6 (presented as new claim 12 in this response) has been amended to

include the position computation module. Support for this amendment is found in paragraph 65 of the specification. In claim 9, presented as new claim 14 in this response, sections (b), (c) and (d) have been deleted.

The satellite visibility function is an integral part of the navigation processing unit in the art of global positioning systems. The satellite visibility function is carried out external to the DSP processor 140 in King et al. as illustrated in FIG. 4. In contrast, in Purushotham Subbarao et al., as recited in paragraph 65, the satellite visibility computation and satellite selection module 217 performs the satellite visibility function within the DSP processor. In Purushotham Subbarao et al., the satellite visibility computation and satellite selection module 217 resides within the DSP 200. Claim 6 (presented as new claim 12 in this response) has been amended to include the visibility computation and satellite selection module. Support for this amendment is found in paragraph 65 of the specification.

The signal tracking function in the art of global positioning systems is an essential function of a correlator unit. King et al. does not contain a correlator unit that includes a numerically controlled oscillator in communication with and residing within the programmable digital signal processor. In King et al., the signal tracking function is not performed within the DSP processor. In King et al., the numerically controlled oscillator (NCO) 133 that performs signal tracking is external to the DSP processor 140, as illustrated in FIG. 4. Whereas, in Purushotham Subbarao et al., as recited in paragraph 64, signal tracking is performed by the correlator 209 that resides within the DSP 200. "Signal tracking", a commonly used term in the GPS industry includes the function of Doppler removal by generating the precise incoming carrier signals with Doppler shifts and multiplying these generated signal with the actual incoming satellite signals. The general use of the term "signal tracking" is described on page 133, figure 5.8 of "Understanding GPS Principles and Applications" by Elliott D. Kaplan. Claim 6, rewritten as new claim 12 in this response, has been amended to include the correlator. Support for this amendment is found in paragraph 64 of the specification. In claim 8, presented as new claim 13 in this response, sections (a), (b) and (d) have been deleted.

Claims 10 and 11 have been made dependent on new claim 12.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). USPTO's Manual Of Patent Examining Procedure, section 2131.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of this application, the Examiner is requested to call the undersigned.

Respectfully submitted,

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Date

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